

***FlyBy Math™* Alignment**  
**2003 Mathematics Standard Course of Study and**  
**Grade Level Competencies**

**Strand: Geometry and Measurement**

***COMPETENCY GOAL 2: The learner will use properties and relationships in geometry and measurement concepts to solve problems.***

**Objectives**

2.02 Apply and use concepts of indirect measurement.

***FlyBy Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

**Strand: Data Analysis and Probability**

***COMPETENCY GOAL 3: The learner will understand and use graphs and data analysis.***

**Objectives**

3.01 Collect, organize, analyze, and display data (including scatterplots) to solve problems.

***FlyBy Math™* Activities**

--Conduct simulation and measurement for several aircraft conflict problems.

--Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

**Strand: Algebra**

***COMPETENCY GOAL 4: The learner will understand and use linear relations and functions.***

**Objectives**

4.01 Develop an understanding of function.  
 a) Translate among verbal, tabular, graphic, and algebraic representations of functions.  
 b) Identify relations and functions as linear or nonlinear.  
 c) Find, identify, and interpret the slope (rate of change) and intercepts of a linear relation.  
 d) Interpret and compare properties of linear functions from tables, graphs, or equations.

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

--Interpret the slope of a line in the context of a distance-rate-time problem.